

ABSTRACT OF THE DISCLOSURE

**A SYSTEM AND METHOD FOR CALIBRATING MODULES
OF A WIDE-RANGE TRANSCEIVER**

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The present invention provides a method, system, and processor instructions for calibrating a modular wide-range microwave communication system. In an exemplary embodiment, the system includes

10 a first radio module including a calibration memory and radio circuitry (e.g., RF transmit, RF receive, and IF circuitry), a test signal processing system including a signal generator, measuring unit, memory, and a processor with instructions; and (for over-temperature tests) an oven or other controlled environment. The system is operable for controlling the

15 signal generator to supply a series of test signals to the first radio module, for controlling the radio circuitry to set attenuation values, for controlling the measuring unit to determine characteristics (e.g., output power) of the radio circuitry based on the series of test signals, and for determining calibration values based on the series of test signals, attenuation values,

20 and the determined characteristics of the radio circuitry, whereby the calibration values are stored in the calibration memory of the radio module.

A modular wide-range transceiver using pre-calibrated modular units, and its operation, is also disclosed.